NASA ARMD COUNCIL OF DEANS

Progress report from:

The Strategic Task Force

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Strategic Task Force Membership

- Lee Burge, Tuskegee University
- Joe Cecchi, University of New Mexico (Chair)
- Diane Dorland, Rowan University
- Kent Fuchs, Cornell University
- George Haritos, University of Akron
- Reda Mankbadi, Emery-Riddle Aeronautical University
- Nino Masnari, North Carolina State University
- Richard Murray, California Institute of Technology

Charge to the Strategic Task Force

Address the two "strategic objectives" in NASA's "Terms of Reference"

- Provide advice and recommendations on NASA's strategies and policies related to the establishment of mutually supportive partnerships with the academic community that contribute to NASA mission and workforce needs starting with ideas and concepts, and continuing throughout their evolution as systems.
- Provide insight into national trends and needs in research and education in the nation's colleges and universities related to the development of a balanced spectrum of efforts with NASA and the integration of academic capabilities and personnel into mission-related research and engineering, and workforce development.

Scope of Activity

- Multiple e-mail exchanges
- Teleconference on 3/31/05
- Individual discussions at EDI

General Comments

- The Strategic Task Force has experienced considerable difficulty in establishing traction on the charge for multiple reasons, among which are:
  - Distraction from the well-publicized shift of NASA's priorities away from aeronautics (and other) research towards manned missions to the moon and Mars.
  - Reduction of 5.9% for aeronautics in the Administration's '06 budget recommendation
  - Vague, overly general, yet highly qualified objectives
  - Two separate but overlapping strategic objectives that appear as an "us vs. them" approach

General Comments (con't)

- Many Task Force members were unable to provide any input
- Much of the input was of a general nature, rather than specific to either of the two objectives
- Mix of strategic and tactical

What is Objective (1)?

Provide advice and recommendations on NASA's strategies and policies related to the establishment of mutually supportive partnerships with the academic community that contribute to NASA mission and workforce needs starting with ideas and concepts, and continuing throughout their evolution as systems.

- Looks at the world from NASA's point of view
- Asks advice on NASA's strategies and policies
- Seeks "mutually supportive partnerships that contribute to NASA's mission and workforce needs"
- Start with ideas and concepts and evolve a system

What is Objective (2) ?

Provide insight into national trends and needs in research and education in the nation's colleges and universities related to the development of a balanced spectrum of efforts with NASA and the integration of academic capabilities and personnel into mission-related research and engineering, and workforce development.

- Posed more from a university point of view
- Asks for university input into trends and needs in research and education
- Such input to be "related to the development of a balanced spectrum of efforts with NASA"
- Such input also to be related to the "integration of academic capabilities and personnel into mission-related research and engineering and workforce development"

Task Force Responses to Objective (1)

- Establish more usable linkages (paths) for providing funding versus limiting funding to follow narrow pipelines.
- What has worked in the past is to be near a center and/or to be aware of existing links, pipelines, paths.
- Adopt a centrally developed and centrally marketed investment strategy (more like other mission-driven agencies do, such as the DoD) for mission-related research and engineering and future workforce development

Task Force Responses to Objective (1) (con't)

- Advise universities on how to redirect "Aeronautics" research to be relevant to emphasis on manned space exploration. (for example aircraft engine research can easily be tooled as Space Propulsion)

Task Force Responses to Objective (2)

- Army, Air Force and Navy communicate needs better to broader community, NASA should review how these processes are implemented.
- NSF cultivates a broader response for emerging and developing technologies and NASA should consider implementing a similar approach.
- Universities (both faculty and administration) tend to invest in and focus research and curricula on topics and areas that funding agencies plan to invest in and from which industry/Government plan to hire graduates. NASA should communicate its investment strategy and hiring needs.

Task Force Recommendations

- Combine Objective (1) and Objective (2) into a single strategic objective that reflects a true partnership between NASA and universities
- Make that single objective clear and distinct
- Keep the number of qualifications to a minimum, and ensure they are easily understood